

WHAT IS CLAIMED IS:

1. An apparatus for leaching zinc concentrates which comprises:
a pressure vessel for charging therein a solution containing at least free sulfuric acid and iron ions,
a stirrer which is disposed in said pressure vessel,
an oxygen gas supply pipe that extends into said pressure vessel from the outside of said pressure vessel, said oxygen gas supply pipe having an oxygen gas inlet port which opens below said stirrer, and
a discharge pipe through which an iron-containing, acidic solution or a slurry that results from the reaction of said solution containing at least free sulfuric acid and iron ions is discharged to the outside of the pressure vessel, said discharge pipe having a drain port which is open in a lower part of said pressure vessel.
2. The apparatus according to claim 1, wherein said pressure vessel is lined with titanium.
3. The apparatus according to claim 1, which further comprises a charge pipe having an inlet port which opens in said vessel.
4. The apparatus according to claim 1, wherein there is a first stirrer, a second stirrer and a third stirrer, said first stirrer, said second stirrer and said third stirrer being spaced apart within said pressure vessel.
5. The apparatus according to claim 4, which further comprises a first partition which is disposed between said first stirrer and said second stirrer; and a second partition disposed between said second stirrer and said third stirrer, to provide three compartments within said pressure vessel.
6. The apparatus according to claim 5, which further comprises a charge pipe having an inlet port which opens in a lower part of a first compartment.

7. The apparatus according to claim 5; wherein said first stirrer, said second stirrer and said third stirrer all have a plurality of blades.

8. The apparatus according to claim 6, wherein said first stirrer, said second stirrer and said third stirrer all have a plurality of blades.